

Name _____

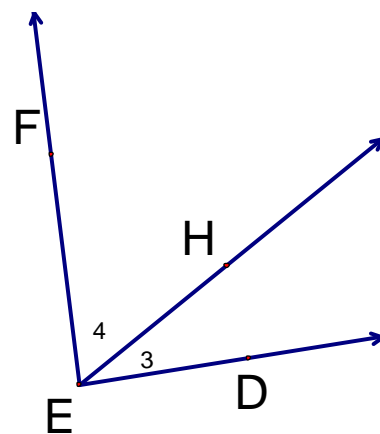
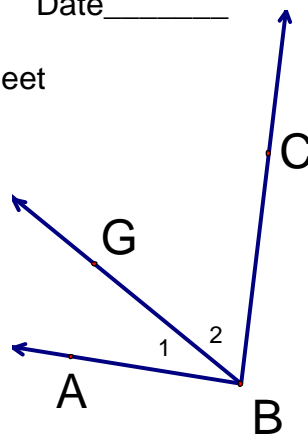
Date _____

201 Addition/Subtraction Proof Worksheet

Complete the following proofs.

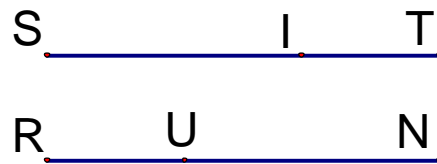
1. Given: $m\angle 1 = m\angle 3$
 $m\angle 2 = m\angle 4$
 Prove: $m\angle ABC = m\angle DEF$

Statements	Reasons
1. $m\angle 1 = m\angle 3$; $m\angle 2 = m\angle 4$	1.
2. $m\angle 1 + m\angle 2 = m\angle 3 + m\angle 4$	2.
3. $m\angle ABC = m\angle 1 + m\angle 2$ $m\angle DEF = m\angle 3 + m\angle 4$	3.
4. $m\angle ABC = m\angle DEF$	4.



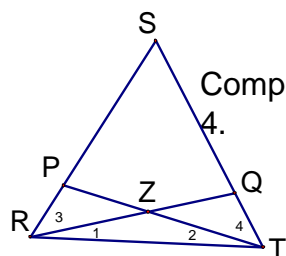
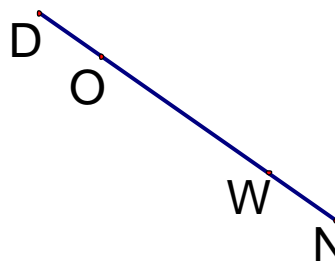
2. Given: $ST = RN$; $IT = RU$
 Prove: $SI = UN$

Statements	Reasons
1. $ST = RN$; $IT = RU$	1.
2. $ST = SI + IT$; $RN = RU + UN$	2.
3. $SI + IT = RU + UN$	3.
4. $SI = UN$	4.



3. Given: $DW = ON$
 Prove: $DO = WN$

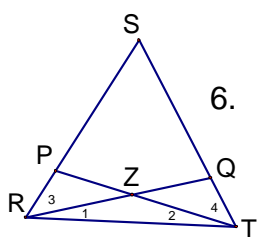
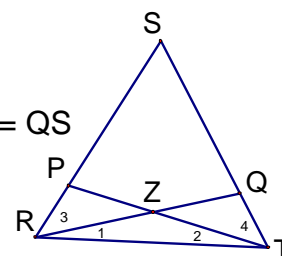
Statements	Reasons
1. $DW = ON$	1.
2. $DW = DO + OW$; $ON = OW + WN$	2.
3. $DO + OW = OW + WN$	3.
4. $OW = OW$	4.
5. $DO = WN$	5.



Complete the following proofs on your own.

4. Given: $m\angle 1 = m\angle 2$; $m\angle 3 = m\angle 4$
 Prove: $m\angle SRT = m\angle STR$

5. Given: $RP = TQ$; $PS = QS$
 Prove: $RS = TS$



6. Given: $RQ = TP$; $ZQ = ZP$
 Prove: $RZ = TZ$

7. Given: $m\angle SRT = m\angle STR$;
 $m\angle 3 = m\angle 4$
 Prove: $m\angle 1 = m\angle 2$

